



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

TXD 981910045

AUG 26 1987

MEMORANDUM

OFFICE OF
SOLID WASTE AND EMERGENCY RESPONSE

SUBJECT: Weekly Report for Week Ending August 28, 1987

FROM: Henry L. Longest II, Director
Office of Emergency and Remedial Response

Walter W. Kovalich
for

TO: J. Winston Porter
Assistant Administrator

- * Local Governments Reimbursement Regulation. The Local Governments Reimbursement Regulation Rulemaking package was sent for OMB/Red Border Review on August 24, 1987.
- * NPL Policy. A memo clarifying the NPL listing policy on municipal landfills was mailed to Regional Division Directors on 8/21/87.
- Inerim PA/SI Strategy. A summary memo and draft PA/SI strategy were sent to the Regional Division Directors and Branch Chiefs for comment.
- HRS Revision. The High Volume Waste Panel of the Science Advisory Board met in Denver on August 20-21, 1987. The session was very successful and provided OERR with very useful information on mining waste and concentration issues.
- ARCS Update
 - HSCD has completed the technical evaluation of the proposals for ARCS contracts in Region III and VI. The winning firms have been asked to submit cost proposals. HSCD will begin debriefing the unsuccessful firms next week. More than 40 firms have asked to be debriefed.
 - Work on round 2 of ARCS (Regions 1, 2, and a Zone of 6, 7, and 8) has begun. HSCD is preparing the 24 PT document for the procurement. Bidders symposia in the regions for round 2 will begin October 1.
- Texas Eastern Gas. HSED prepared a letter for the Sepecial Assistant to the Administrator, requesting several Regions to provide data on six natural gas pipeline companies. This is the final data gathering exercise of the original Texas Eastern Gas pipeline activity. In addition, HSED is assisting with the interpretation of analytical results from the Texas Eastern investigations.

- Farmers Home Administration. On 8/20/87, Dziuban and Crump met with personnel from the Farmers Home Administration (FmHA) to discuss cleanup of up to 5,500 farms which have been foreclosed by FmHA. Many of the farms have either allowed the disposal of hazardous substance on their property, and/or contain pesticides in deteriorating containers. These farms are now considered Federal Facilities, EPA will provide FmHA with as much technical assistance and administrative information as possible when developing their cleanup program.
- Stringfellow Waste Test Burn - An HSCD staffer and several contractor personnel met with SHIRCO staff on August 19 to observe a pilot test burn of contaminated soils from the Stringfellow site. The information gathered will be relevant to both treatability studies and BDAT for soils.
- Distinguished Career Award. On 8/24/87, the Administrator signed a distinguished career award for James Willman, Senior On-scene Coordinator, Region X. The Regional Administrator will present a Gold Medal, a pin and a certificate, to Willman upon his retirement on 8/28/87.

<u>Removal Program</u>		<u>FY 1987</u>	<u>Program To Date</u>
Actions Started		222 actions	1,025 actions
Actions Completed		140 actions	837 actions
Obligations (as of 8/24/87)		65.3 million	255.7 million
<u>Remedial Program</u>			
CERCLIS Inventory (as of 8/13/87)*		2,043 sites	27,187 sites
Preliminary Assessment		2,865 sites	22,860 sites
Site Inspections		1,063 sites	7,519 sites
Obligations (as of 8/24/87)		350.2 million	1.065 billion
<u>ERT FY-87 Actions:</u>	77 Started	91 Completed	86 Ongoing

* Data beyond this date unavailable until the new CERCLIS is in place.

Handwritten: 1. Gates J
2. Tregorring H
3. File

TEXAS WATER COMMISSION

B. J. Wynne, III, Chairman
Paul Hopkins, Commissioner
John O. Houchins, Commissioner



Allen Beinke, Executive Director
Michael E. Field, General Counsel
Brenda W. Foster, Chief Clerk

February 1, 1989

Mr. Mike Hill, Senior Engineer
Ecova Corporation
Gulf Coast Region
12790 Merit Drive #220
Lock Box 145
Dallas, Texas 75251

Re: Request for Waiver of Notification Requirements for
Treatability Testing
Industrial Solid Waste Registration No. 32592
EPA ID No. TXD 981910045

Dear Mr. Hill:

This is in response to your letter dated January 18, 1989 requesting a waiver of the 45-day notification period before conducting treatability studies. As you may or may not know, on January 17, 1989 the Texas Water Commission (TWC) adopted amendments to 31 Texas Administrative Code (TAC) Sections 335.1, 335.2, 335.69, and 335.78 which incorporate the federal regulations promulgated by the U.S. Environmental Protection Agency on July 19, 1988. The effective date of these regulations as published in the Texas Register is February 1, 1989.

Please be advised that we do not believe the rules allow us to grant a waiver of the notification requirements, nor do we intend to consider such a request. We will however, accept your letter as proper notification provided you submit and we receive the Treatment Facility Information (Item no. I) and the Generator/Waste Stream Information (Item no. II) detailed below, 30 days before you conduct any tests. In addition please note the Reporting and Recordkeeping Requirements (item no. III) which are offered for your benefit.

I. Treatment Facility Information.

1. Identify the TWC Industrial Solid Waste (ISW) Registration No. and EPA ID No. assigned to the facility conducting the treatability test.
2. Submit a detailed description of the process unit and treatment activity you are proposing. The description should include a discussion of the operating components, the capacity of the unit, and details on the proposed operating parameters.

3. Submit a map or plan view of your facility showing at a minimum the location of the facility unit and the surrounding property.
4. Submit a description of the storage facilities to be used for the waste sample.

II. Generator/Waste Stream Information.

1. Submit the name and address of the generator of the specific waste stream to be tested. The generator's ISW Reg. No. and EPA ID No. should also be included.
2. Submit a description of the waste to be tested. To the maximum extent possible the information should include the following:
 - a. TWC Waste Code and EPA Hazard No.;
 - b. A description of the process which produces the waste;
 - c. The quantity of waste to be tested;
 - d. The physical form of the waste (i.e., soils, water, debris, etc.);
 - e. Other physical and chemical characteristics such as: specific gravity, viscosity, organic content, inorganic content, percent ash, metals content, heat value, etc.;
3. Projected time frames for the test including when you expect to receive the sample and when you expect to return or dispose of the residues remaining after the test;
4. The daily treatment rate; and
5. A description of the sample packaging.

III. Reporting and Recordkeeping Requirements.

You must maintain the following records for a period ending 3 years after completion of each treatability study:

1. Copies of the shipping documents;
2. A copy of the contract with the facility conducting the treatability study;

Mr. Mike Hill
Page 3
February 1, 1989

3. The name, address, and EPA ID No. of the generator;
4. The date the shipment was received;
5. The quantity of waste accepted;
6. The quantity of "as received" waste in storage each day;
7. The date the treatment study was initiated and the amount of "as received" waste introduced to treatment each day;
8. The date the treatability study was concluded; and,
9. The date any unused sample or residues generated from the treatability study were returned to the generator or, if sent to a disposal facility, the name of the facility and TWC Permit No. or EPA ID No.
10. In addition, please note that by March 15 of each year, you must submit a report to the Executive Director of the TWC summarizing the information required in items III.1. through III.9. listed above.

Should you have any questions concerning this matter or need further assistance please feel free to call Mr. Cesar Farias of my staff at AC512/463-8193.

Sincerely,



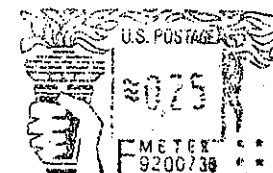
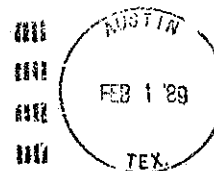
Daniel J. Eden, Director
Hazardous and Solid Waste Division

CAF:caf

cc: ✓ Sam Becker - EPA Region VI
TWC District 4 - Duncanville
Ed Hatton - TWC Compliance Assistance Unit



TEXAS WATER COMMISSION
P.O. BOX 13087
CAPITOL STATION
AUSTIN, TEXAS 78711-3087



Mr. Sam Becker, P.E., Chief
RCRA Permits Branch
U.S. Environmental Protection Agency
Region VI - 6H-CP
1445 Ross Avenue
Dallas, Texas 75202-2733



Shirco Infrared bankrupt

By Walter M. Rogers
Staff Writer

Dallas-based Shirco Infrared Systems Inc., a technology leader in toxic waste disposal, filed for bankruptcy Monday, and company officials said its assets will most likely be liquidated.

Shirco's annual sales topped \$8 million for its fiscal year ended June 31, but since then the company has received no revenues, president Briggs V. Nesmith said.

"The industry did not develop as fast this year as anticipated, and capital was not available," Nesmith said. "The venture-capital community did not want to invest any more in the company as a manufacturing and sales company. They wanted it to become a service company."

Eleven-year-old Shirco sold infrared heaters that break most hazardous wastes into water vapor and carbon dioxide, leaving behind harmless sand or soil. Shirco's infrared process does not require the volumes of air necessary for conventional furnaces, and the equipment can be transported to contaminated areas.

Nesmith said the absence of revenues the past six months was due, in part, to the Environmental Protection Agency's protracted process of designating hazardous waste sites. Without new sites, Shirco had no potential customers, he said.

Please see SHIRCO on Page 15D.

Shirco Infrared bankrupt; assets sale likely

Continued from Page 1D.

"The EPA is the industry driver, and they've been very slow in getting new (hazardous waste) sites studied and evaluated," Nesmith said. "In all likelihood, we'll sell the assets of the company, and we'll sell the technology."

Nesmith was appointed to head Shirco in August by its board of directors, at the same time the EPA initiated a criminal investigation against the company. The federal agency impounded waste samples and invoice records to ascertain whether Shirco had proper authorization to dispose of six 55-gallon drums of hazardous wastes shipped from California.

The investigation also included possible violations of making "false or fraudulent statements" to the EPA and violating conflict-of-interest statutes by hiring former agency officials, according to EPA documents.

"It is an active, ongoing criminal

investigation," said Mark Wright, deputy assistant director of the EPA's Office of Criminal Investigation in Denver.

Wright would not comment on the maximum sentences associated with the investigations, but said any violations would be felonies that carry prison sentences.

Nesmith said the disposal dispute involves a miscommunication between the company and state and federal agencies.

"The EPA claimed we didn't have the proper permit to burn hazardous waste at that facility (in Dallas)," he said. "Our contention and belief, and the belief of the Texas Water Commission, was that we did have the proper authorization."

Shirco also ran into some difficulties with the federal agency when a Louisiana competitor complained of a potential conflict-of-interest between Shirco and an EPA enforcement agent.

Shirco vice president Scott Ber-

dine, a former EPA employee, and EPA deputy regional administrator Frances Phillips, the second-ranking official in the Dallas office, are married. Marine Shale Processors Inc. of Amelia, La., itself under a grand jury investigation for possible illegal waste disposal, complained of the potential conflict.

In September, the EPA removed Phillips from enforcement responsibilities of anti-pollution laws. Shirco also is under investigation for the possible improprieties associated with hiring Berdine and two other former EPA officials.

Under federal law, former government officials are restricted in accepting jobs in industries with which they dealt while federally employed. Phillips, who said she and her husband had dedicated their careers to protecting the environment, had said she notified officials of her husband's move to Shirco the day he left the EPA.

RECORD OF COMMUNICATION		<input type="checkbox"/> PHONE CALL <input checked="" type="checkbox"/> DISCUSSION <input type="checkbox"/> FIELD TRIP <input type="checkbox"/> CONFERENCE <input type="checkbox"/> OTHER (SPECIFY) _____ <small>(Record of item checked above)</small>	
TO: BILL GALLAGHER	FROM: BILL TAYLOR	DATE: 9/14/87	TIME: 3:45
SUBJECT CIVIL ENFORCEMENT AT SHIRCO			
SUMMARY OF COMMUNICATION <p style="text-align: center;"> AFTER DISCUSSIONS WITH AL DAVIS + JIM NEAT, IT WAS DECIDED THAT BECAUSE OF THE ONGOING CRIMINAL INVESTIGATION OF SHIRCO BY NEIC, EPA WILL NOT PROCEED AT THIS TIME WITH A CIVIL OR ADMINISTRATIVE INVESTIGATION OF ANY POSSIBLE RCRA VIOLATIONS. </p>			
CONCLUSIONS, ACTION TAKEN OR REQUIRED			
INFORMATION COPIES TO: B. TAYLOR, S. BECKER			

SHIRCO INFRARED SYSTEMS, INC
DALLAS, TEXAS
RCRA COMPLIANCE INSPECTION
AUGUST 28, 1987

SUMMARY

I Purpose

As a result of information that indicated possible RCRA violations, and an investigation by NEIC, this inspection was conducted to determine if SHIRCO is or is not in violation of the RCRA regulations.

II Description of site

A. The site consists of:

- A warehouse containing:
 - a bench scale incineration unit
 - the storage area for wastes that may be hazardous
 - non-hazardous waste storage
 - a small lab
 - misc. equipment and maintenance areas
- outside the warehouse were ~~two (2)~~ ^{three (3)} mobile pilot incinerators

B. Wastes stored on-site: (we can not determine if the wastes are ~~HAZAR~~)

- 6-55 gal. drums of contaminated soil from the Stringfellow acid pits, a superfund site in California
- ash from test burn of Stringfellow waste
 - 4- 55 gal. drums
 - 3- 5 gal. plastic containers
- 9 - 30 gal. plastic drums of blow-down water from the Stringfellow TEST
- ~~87~~ 55 gal. drums of contaminated safety equipment, plastic, Rags and absorbent pillows (may be contaminated with some solvents)
- about two pints of commercial chemicals used to spike the Stringfellow wastes for incineration
- ~~SHED~~

III Risk to public health and the environment

Risk appears to be low.

- waste on site does not appear to be high hazard * NO RECORDS AVAILABLE TO CONFIRM COMPOSITION OF WASTE. ALL RECORDS SEIZED BY NEIC
- stored inside warehouse

- incinerator was not operating, but SHIRCO said when operating it was achieving 99.999% DRE. * NO RECORDS. ALL SEIZED BY NEIC
- discharge of sanitary waste and lab wastes to city sewer
- no other discharges of contaminated water
- no land disposal units on site
- * the only liquid wastes are blow-down water from the stringfellow waste burn. If spilled, there is no containment, spill may go to unprotected floor drain. SHIRCO did not know where the floor drain went.

IV Regulatory Issues

- A. We are not able to confirm that the wastes stored or burned are actually hazardous wastes. All the SHIRCO records were seized by NEIC.
- B. Does SHIRCO have interim status?
 - they had interim status at the old site
 - they moved to the present site
 - interim status is site specific, it does not move with the unit.
 - therefore, it appears that SHIRCO does not have interim status
 - SHIRCO maintains that it does have interim status
- C. Does SHIRCO have a RCRA permit?
 - No. Neither EPA or TWC have issued a RCRA Permit to SHIRCO.
- D. LAB EXCLUSION
- V. Conclusions and Recommendations

- A. No violations can be confirmed or rejected until all the EPA and TWC files and the SHIRCO files seized by NEIC are reviewed.
- B. The first question to answer is whether the wastes stored or burned were in fact hazardous waste.

Illegal burning of toxic wastes in city suspected

By Allen Pusey
and Bruce Tomaso

Staff Writers of The News

A team of special federal agents conducting a criminal investigation on Wednesday searched the offices and property of a Dallas-based company believed to be systematically burning off highly toxic materials without required federal environmental permits.

The team, which included officers of the U.S. Environmental Protection Agency's National Enforcement Investigations Center in Denver, removed records and residue samples from the premises of Shirco Infrared Systems Inc., a waste systems manufacturing company.

At least three Shirco employees are former employees of the Dallas regional office of the EPA. One of the three, company vice president Scott Berdine, is the husband of Frances Phillips, the current deputy regional administrator of the Dallas office. The company's stockholders include former EPA Director William Ruckelshaus.

Shirco chairman James Welsh said late Thursday that his company has complied with all pertinent federal regulations. "We're as surprised as anyone," he said. "We've done nothing wrong. We don't know where this is coming from — a disgruntled former employee, an angry EPA official, or what."

Ms. Phillips said she knew nothing about the investigation. "I was told as a matter of courtesy that there was going to be a search warrant issued to Shirco, but I don't know any of the details or reasons why," she said.

"If they've done anything wrong, I can tell you that my husband and I both would hope that they are prosecuted and get their fair justice. And I can't imagine that anybody as dedicated to the environment as my husband and I have been for our entire careers would say anything

Please see DALLAS on Page 11A.

Dallas firm probed for allegedly

Continued from Page 1A.
different."

Ruckelshaus, who was identified by both Welsh and federal investigators as a Shirco stockholder, could not be reached for comment.

EPA officials referred calls about the investigation to the U.S. attorney's office in Dallas. Assistant U.S. Attorney William F. Alexander confirmed the search and said investigators had found evidence of improper hazardous-waste treatment at the site.

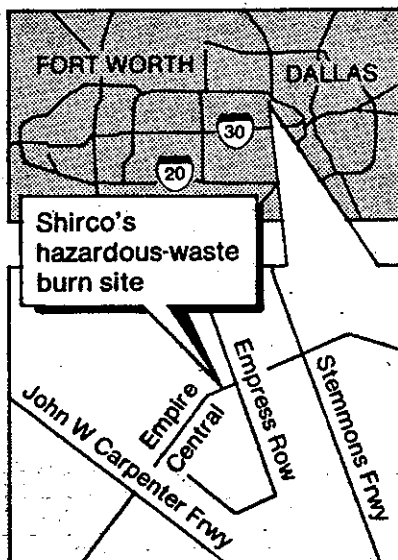
"We have verified the burn-offs of the toxic material and the fact that it was done without the proper permits," said Alexander. "And that's just flat against the law."

Shirco manufactures a high-technology incinerator-like system that the company said destroys hazardous wastes in a series of infrared heaters. The system is mobile and can be taken to a hazardous-waste site.

According to an agent's affidavit filed with the search warrant, investigators were searching for evidence that Shirco had improperly transported, stored and treated a broad array of deadly chemical compounds, including dioxins, polychlorinated biphenyls and chloroform.

The affidavit indicated that as recently as Aug. 17, Shirco incinerated six 55-gallon drums of hazardous waste shipped from California to the company's facilities at 1195 Empire Central, near Stemmons Freeway, less than a half-mile from the Trinity River.

The wastes were shipped from



the Stringfellow Acid Pits, an abandoned toxic-waste dump in Riverside, Calif., that is being cleaned up under the federal Superfund program.

Welsh said that although the Shirco system is mobile, the waste was shipped to Dallas because burning it in California would have been politically sensitive.

According to court records, the company had no permit to transport, store or dispose of the hazardous waste. Moreover, the affidavit said, a company brochure claimed the company had the proper permit.

The affidavit said federal investigators believe "there is evidence of criminal violations" by Shirco, including:

- Generating, treating, storing and disposing of hazardous wastes

without a permit.

- Making "false or fraudulent statements."

- Violating federal conflict-of-interest statutes governing conduct by former government officials. Under federal law, former government officials are restricted in accepting jobs in industries with which they dealt while federally employed. High-level government employees also are required to disclose sources of family income.

Individuals convicted of knowingly violating federal hazardous-waste laws can be sentenced to as much as five years in prison and fined up to \$250,000. Corporations found guilty can be fined up to \$1 million.

Welsh said that his company was conducting tests on the 3,500 pounds of materials at the request of officials in California, and that while his company has no EPA permits to dispose of the waste, it has applied for a research permit that would allow an exemption from normal regulations. He said the company still had not received such a "laboratory exclusion" to allow small burn-offs of toxic wastes.

Although the application had not yet been approved, Welsh said he had written authorization from the Texas Water Commission to conduct hazardous-waste disposal tests. That letter was included in documents seized by the federal investigators, Welsh said.

"We are fully aware of the law and are operating accordingly," Welsh said.

illegal toxic-waste burning

However, the court documents say that although the Texas Water Commission has authority to process such permit applications, "the State of Texas does not have authority ... to grant final approval of permits" to treat toxic wastes. Former EPA officials working at Shirco "would have to be intimately knowledgeable" that final authority for approval would rest with the EPA, the affidavit said.

As a manufacturer of waste-dis-

posal systems, the 11-year-old company has never functioned as a waste-disposal concern, Welsh said. However, as a manufacturer, Shirco has conducted numerous laboratory tests and demonstrations on a wide variety of toxic-waste products. The tests have been conducted with the same system — a mobile pilot system — as examined this week by federal investigators.

Welsh said the presence of former EPA employees "in no way" vi-

olated federal conflict-of-interest laws. Some, including Berdine, had left the agency as long as five years ago. Berdine was former deputy director of the water division of the Dallas regional office of the EPA.

Ms. Phillips, the deputy regional EPA chief in Dallas, said she was required to notify the agency of her husband's employment with Shirco under federal ethics regulations. She said she did so "the day he went to Shirco."

EPA: Dallas firm burned toxic waste without permit

By Lisa Pope
OF THE TIMES HERALD STAFF

A manufacturer of hazardous waste incinerators has conducted "test burns" in Dallas of samples from an Environmental Protection Agency Superfund waste disposal site in California without federal approval and is the target of a criminal investigation, federal authorities said Thursday.

Special agents from the EPA's National Enforcement Investigations Center in Denver and the U.S. Office of Inspector General have seized samples of burned waste and other materials from Shirco Infrared Systems Inc.,

1195 Empire Central in northwest Dallas. They plan to have them chemically analyzed, a process that could take up to two months, according to authorities and an affidavit filed in U.S. district court.

Agents seized the samples Wednesday after obtaining a federal warrant allowing them to search the Shirco plant.

The investigation, which began with a tip from a confidential informant two months ago, is the first probe of a Dallas-Fort Worth area firm for possible violations of the federal Resource Conser-

Please see EPA, A-19

EPA

From A-1

vation and Recovery Act, authorities said. No Dallas area firm has EPA permission to burn hazardous wastes covered under the act, said Roger Meacham, a spokesman for the Dallas regional EPA office.

Shirco has pending applications with the Dallas regional office for a research permit and with EPA headquarters in Washington, D.C., for a permit to burn hazardous chemicals known as PCBs in a mobile incinerator. But, Meacham said, both applications are under review, a process that usually takes several months.

Burning hazardous wastes without an EPA permit would be a violation of the act, which carries a prison sentence of up to two years and a fine of \$50,000

for each burn, authorities said.

"We've been absolutely up front with everyone through the years in terms of relationships with regulatory agencies," said James N. Welsh, Shirco's chairman of the board. "I guess to say we were surprised is a fair word."

Welsh confirmed that Shirco, where about 100 employees assemble patented incinerators, has conducted "very, very little" hazardous waste testing on the site. But, he said, the few test burns that were conducted had the approval of the Texas Water Commission and went on under controlled and safe conditions. The tests, he said, never have posed a health threat.

"With very little exception," Welsh said, testing at the site in the last 11 years has all been on "non-hazardous" waste.

The latest exception occurred last week, Welsh said, when the company burned a "mish-mash" of low-level pesticide-contaminated soil from the Stringfellow Landfill in Riverside, Calif., an

EPA Superfund waste disposal site, as a demonstration project to determine the treatability of the material. Shirco burned about 70 pounds an hour for a "couple of hours" in the test, which Welsh said was cleared by the Texas Water Commission and "conducted under the auspices of the California Department of Health Services."

"Basically what we do is take very small quantities of material and put them in our high-temperature process system and conduct a series of air and emission tests. And (we) collect samples of the treated material to show we have removed everything from the dirt," said Welsh, who expects results from the tests next month. "The stack is continuously monitored."

Welsh said the test was "certainly not" a violation of the fed-

eral hazardous waste act and that the water commission, which he believes to have the final authority on such tests in Texas, was informed in advance of the demonstration.

But EPA spokesman Meacham said such a burn would require an EPA hazardous waste permit, which is granted in conjunction with the water commission. Water commission officials could not be reached for comment Thursday.

Meacham declined to comment further on the case, saying, "We are aware of a search warrant. But we have no information and no comment."

The affidavit says an EPA project manager at the Stringfellow site told federal investigators that a California state contractor allegedly shipped six 50-gallon drums of hazardous waste, con-

taining metals and organic compounds and weighing about 3,500 pounds, from the landfill to Shirco on Aug. 1 for a test burn. The six drums allegedly were incinerated in Dallas on Aug. 17, according to information the EPA project manager received from a Shirco representative in a telephone call.

According to the affidavit, which alludes to other allegedly illegal burns, the investigators were searching Wednesday for traces of a number of toxic wastes covered by the federal act, including PCBs, dioxin and wastewater treatment sludge. The investigators also were looking for employee and corporate records, as well as documentation of burned and stored materials.

Two former EPA regional employees now work for Shirco, and

William Ruckelshaus, the former EPA chief, has a "small interest" in the firm, said Welsh. He added, however, that he could not recall whether Ruckelshaus was a direct or indirect stockholder.

"It's really not material," he said.

Ruckelshaus, now an attorney in Seattle, could not be reached for comment.

Shirco has two incinerating units operating at EPA Superfund sites in Florida, said Welsh, who bought the company from Dallas businessman H.R. "Bum" Bright in 1983. Last fall, Shirco sold a \$2.6 million hazardous waste incinerator to a Georgia firm and signed an agreement, valued at \$15 million, to provide five of its machines to Reidel Environmental Technologies of Portland, Ore., according to newspaper accounts.

Conflict of interest alleged in waste case

By Allen Pusey
and Bruce Tomaso
Staff Writers of The News

Officials of a hazardous-waste treatment company under federal investigation in Louisiana said Friday that they complained several months ago to the Justice Department about potential conflicts of interest involving a high-ranking official of the Environmental Protection Agency and a Dallas-based competitor whose offices were raided this week.

The Dallas company, Shirco Infrared Systems Inc., is the target of a separate, but possibly related, federal investigation into allegations of conflicts of interest and illicit burning of toxic waste near the Trinity River.

According to court records, on Aug. 17 Shirco incinerated six 55-gallon drums of hazardous wastes

shipped from a toxic dump in River side, Calif., to the company's facilities at 1195 Empire Central.

The toxic materials apparently included metals and organic compounds removed from the Stringfellow Acid Pits as part of a federal cleanup. Shirco is a manufacturer of hazardous-waste treatment equipment and has no federal permit to transport, store or dispose of any form of hazardous waste, according to court records.

In a search Wednesday, a team of special federal agents confiscated business records, correspondence and waste samples from the Shirco site. The files and samples have been shipped to the EPA's National Enforcement Investigations Center in Denver for cataloging and analysis.

James Welsh, the chairman of
Please see QUESTIONS on Page 11A.

INSIDE

Questions about conflict of interest raised in toxic-waste case

Continued from Page 1A.

Shirco, did not return telephone calls on Friday. On Thursday, he said the company had written authorization from the Texas Water Commission to burn hazardous wastes in testing its equipment.

"We've done nothing wrong," he said.

Among the stockholders of Shirco, which manufactures high-technology infrared waste treatment systems, is former EPA Administrator William Ruckelshaus, who now operates a Washington, D.C., consulting firm. Ruckelshaus, vacationing on Puget Sound, was unavailable for comment.

Phillip Angell, executive vice president of Ruckelshaus' consulting firm, said the former EPA chief has "a very small investment" of about \$25,000 in Shirco and "nothing whatsoever" to do with the company's operations. He also said Ruckelshaus knew nothing about the investigation.

According to an affidavit filed with a search warrant, at least three Shirco employees are former employees of the Dallas regional office of the EPA.

Water Commission officials confirmed Friday that they gave conditional approval to Shirco in January for test burning of hazardous waste in Dallas.

However, the state officials said, they asked Shirco to notify them 48 hours before any burning took place, but no such notification was made before the August incineration.

The state officials added that their approval did not relieve the

"Ms. (Frances) Phillips has had no regulatory involvement in any matter involving Marine Shale."

— EPA spokesman Roger Meacham

company of any separate obligations, under federal law, to the EPA. The criminal investigation deals only with potential violations of federal laws.

"We were not speaking in behalf of the federal agency," said Bryan

Dixon, director of the Water Commission's hazardous and solid waste division.

After Shirco officials met with Dixon and other Water Commission officials in January of this year, and discussed plans to conduct test

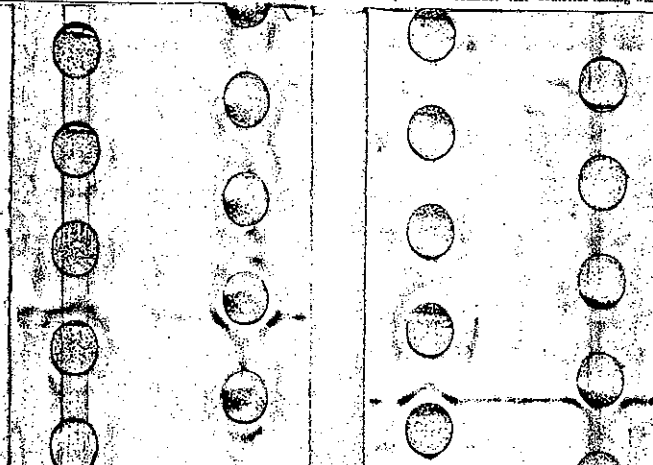
burns of wastes in Dallas, Dixon wrote to Berdine on Jan. 16, saying the state agency "has no objections to your scheduled activity."

Dixon said the state agency — which enforces some federal hazardous-waste laws — authorized Shirco to proceed with the test burns because he thought the company might be exempt from federal permit requirements. Federal law provides such an exemption for laboratories testing wastes under con-

tract with the EPA.

"It is now perfectly clear, at least to the EPA, that they needed a permit," Dixon said. "It wasn't until after that (January) meeting that we began to see more clearly that the laboratory exclusion did not apply to Shirco."

Dixon acknowledged, however, that his agency failed to get back in touch with Shirco to advise the company that it did need a permit for the burning after all.



One of the three, Shirco vice president Scott Berdine, is married to deputy regional administrator Frances Phillips — the second-ranking official in the Dallas office, which oversees EPA activities in Texas, Louisiana, Arkansas, Oklahoma and New Mexico.

Berdine and Ms. Phillips have denied any conflict of interest, but their relationship has drawn the ire of officials of Marine Shale Processors Inc.

Marine Shale, a hazardous-waste treatment company in Amelia, La., has been under federal grand jury investigation in Louisiana, according to federal documents and Marine Shale officials. That investigation involves a wide variety of allegations ranging from illegal dumping of toxic materials to influence peddling by Louisiana officials.

Denying that his company has been involved in any wrongdoing, Marine Shale general counsel George Eldredge said Friday that company officials believe the 18-month investigation has been influenced by Ms. Phillips' marriage to Berdine — to the advantage of Shirco and other competitors.

"This investigation has gone on far too long," said Eldredge. "And under the circumstances, it is hard for us to ignore (the marriage)."

Eldredge and Robert C. Odle Jr., an attorney for Marine Shale, said they lodged a formal complaint with the environmental crimes unit of the Lands Division of the U.S. Justice Department. Moreover, correspondence between Marine Shale and Dallas EPA officials reflects longstanding concerns over the handling of the investigation, including charges that EPA officials, based on the investigation, were steering potential clients away from Marine Shale.

"If Marine Shale has done something wrong, charges should be brought," Odle wrote Ms. Phillips on June 16. "If it has not, then (EPA) Regional personnel should not be acting in a way that directs business to Marine Shale's competitors."

Neither Ms. Phillips nor Berdine returned telephone calls. However, Dallas EPA spokesman Roger Meacham said in her behalf: "Ms. Phillips has had no regulatory involvement in any matter involving Marine Shale. Because the matter is under investigation, it would be inappropriate for her to comment further."

However, correspondence between Ms. Phillips and Richard Fortuna, executive director of the Hazardous Waste Treatment Council, a trade association, suggests that Ms. Phillips may have been aware of the Marine Shale investigation. For instance, a Feb. 5, 1987 letter to Fortuna — signed on Ms. Phillips' behalf by an aide — declined to provide information about Marine Shale because an answer "would require the disclosure of sensitive enforcement deliberations."

On Oct. 27, 1986, Fortuna had written Ms. Phillips urging a review of complaints concerning Marine Shale's waste treatment operation. Three weeks later, EPA investigators armed with a search warrant seized business and technical files from Marine Shale's Amelia plant, Odle said.

A 1986 directory of voting members of Fortuna's organization includes both Berdine and Shirco chairman Welsh.

Welsh, interviewed Thursday, said none of the company's employees were involved in conflicts of interest.

He said that, although he knew Shirco did not have a federal permit to incinerate the wastes from California, it did have permission from the Texas Water Commission.

US ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, DC 20460

TOXIC SUBSTANCES CONTROL ACT

Form Approved
OMB No. 2070-0007
Approval expires 8-31-85

RECEIPT FOR SAMPLES AND DOCUMENTS

1. INVESTIGATION IDENTIFICATION			2. FIRM NAME
DATE <i>8-29-87</i>	INSPECTOR NO. <i>19840</i>	DAILY SEQ. NO. <i>01</i>	<i>Shirco Inc</i>
3. INSPECTOR ADDRESS <i>U.S. EPA Region 6 (6E-SH) 1445 Ross Ave Dallas, TX 75202-2733</i>			4. FIRM ADDRESS <i>1195 Empire Central Place Dallas, TX 75247</i>

The documents and samples of chemical substances and/or mixtures described below were collected in connection with the administration and enforcement of the Toxic Substances Control Act.

RECEIPT OF THE DOCUMENT(S) AND/OR SAMPLE(S) DESCRIBED IS HEREBY ACKNOWLEDGED:

NO.	DESCRIPTION
<i>01</i>	<i>DOCUMENTS</i> <i>Draft Copy: Results at the May 27, 1987 PCB Destruction Test of the Shirco Portable Demonstration IR Furnace Incinerator at the TCAAP in New Brighton, Minnesota Report No. 7-2375 August 12, 1987</i>
<i>02</i>	<i>Results of the January 22, 1987 PCB Destruction Test of the Shirco Portable Demonstration IR Furnace Incinerator at the TCAAP in New Brighton, Minnesota Report No. 7-2326 B April 22, 1987</i>
<i>03</i>	<i>LABORATORY TESTING DESCRIPTION</i> <i>SAMPLES ✓ HASON JARS MARKED ON LID AS:</i>
<i>01</i>	<i>'SOUTH 36'</i>
<i>02</i>	<i>'SOUTH 112'</i>
<i>03</i>	<i>'NORTH 86'</i>
<i>04</i>	<i>'NORTH 102'</i>
<i>05</i>	<i>'NORTH 126'</i>
<i>06</i>	<i>'NORTH TOP E'</i>

OPTIONAL:

DUPLICATE OR SPLIT SAMPLES: REQUESTED AND PROVIDED ☐ NOT REQUESTED ☐

INSPECTOR SIGNATURE <i>[Signature]</i>		RECIPIENT SIGNATURE <i>[Signature]</i>	
NAME <i>Richard P. McLaughlin</i>		NAME <i>Mark L. de Lorimier</i>	
TITLE <i>Field Inspector</i>	DATE SIGNED <i>08-29-87</i>	TITLE <i>MANAGER</i>	DATE SIGNED <i>8-29-87</i>



LABORATORY TESTING DESCRIPTION

INTRODUCTION

Shirco Infrared Systems, Inc., has long maintained a reputation of willingness to investigate new applications for its equipment. To this end, the Analytical Services Laboratory was developed in the mid-1970's. The lab is administered by the firm's Applications and Development (A&D) Engineering Group. A process engineer is assigned to each laboratory investigation, to provide maximum technical support. The facility is equipped with a variety of small-scale infrared furnaces for testing at various levels. Laboratory Testing is used to integrate the Shirco infrared processing technology with basic applications of that technology. As a result, scale-up to a full-size system based on those test results is more straightforward. Through the years, Shirco has accumulated a large body of test data on many processes. This experience is used to accurately screen potential applications, and to establish baseline process conditions for both testing and full-size system design.

LABORATORY TESTING

A testing program involves three (3) phases: material property determination, process test runs, and process performance analysis. The first phase consists of determining both the physical and chemical properties of the material. These properties allow "baseline" and follow-on test conditions to be determined. Actual testing consists of a matrix of runs in a Thermogravimetric Analyzer (TGA) furnace at varying conditions of residence time, temperature, and atmosphere.

The TGA unit is a laboratory-scale infrared furnace incorporating many of the features of Shirco's full-size systems, such as fiber blanket insulation, silicon carbide infrared heating elements, and closed-loop temperature control. Control of furnace atmosphere is provided by injection of required gases (air, steam, etc.). Instead of passing through the furnace on a high-temperature metal belt, the test material is suspended inside the furnace in a basket connected to an externally-mounted electronic balance. Output from the balance and a furnace thermocouple are plotted by a strip-chart recorder to give a real-time representation of time, temperature, and sample weight loss for the process.

The sample weight change-process temperature strip chart records of these runs are analyzed, as are residues from the tests.

TEST MATERIALS

Test material samples are provided by the Customer in two pound (2 lb) lots. Each sample must be properly packaged, labeled, and manifested (if applicable). In addition, each sample must be accompanied by a completed "Pre-Test Material Questionnaire and a complete material characterization. Failure to provide proper material characterization may result in delays in testing. Unused test material requiring special disposal procedures is returned to the Customer at his expense.

MATERIAL PROPERTY DETERMINATION

For incineration tests, typical feed material properties determined are:

- dry solids content
- moisture content (Karl Fischer method)
- combustible solids content
- higher heating value
- density
- pH

For filter media processing (granular carbon, diatomaceous earth, etc.), typical property determination includes:

- moisture content
- volatile (organic material) content
- fixed carbon content
- ash content
- apparent density
- adsorptive index (Iodine Number, Molasses Number, etc.)
- pH

Additional property testing can be performed if the above parameters are not applicable to the testing program. Analysis of other properties may require the use of outside test agencies, at the Customer's expense.

TGA TESTING

TGA runs are conducted for each material at varying temperature, residence time, and atmospheres to determine optimum conditions. Copies of strip charts detailing processing time, temperature, and sample weight relationships are available on request.

POST-TEST ANALYSIS

Residual material from all TGA runs will be subjected to the property analyses noted above as applicable. As with feed material testing, some chemical property tests may be performed by outside agencies at Customer's expense. All residue samples are returned to the Customer.

REPORTING

A summary report on the testing and results is issued by Shirco within ten (10) working days from receipt of outside agency reports (if applicable) or ten (10) working days from completion of testing if outside agencies are not involved in post-test analysis. The report includes operations data, test observations, and results. Recommended process parameters for follow-on testing and/or system design are included.

COST

The cost for processing each material sample is based on the type of material and number of TGA runs conducted. A typical program consists of three (3) runs.

Additional runs may be required to determine optimum processing conditions or to obtain larger residual material quantities.

Non-Hazardous Material Incineration

Setup/Property Testing	\$ 400.00
TGA Runs (each)	\$ 250.00*
Residual Property Testing	\$ 150.00

Hazardous Material Incineration

Setup/Property Testing	\$ 400.00
TGA Runs (each)	\$ 350.00*
Residual Property Testing	\$ 150.00

Filter Media Regeneration

Setup/Property Testing	\$ 325.00
TGA Runs (each)	\$ 250.00*
Residual Property Testing	\$ 250.00

Other Process Testing

Rates Available

* Maximum test run duration is two hours (2 hrs). Additional run time is charged at the rate of \$ 50.00 per hour.

Prior to starting a test program, a Purchase Order for the expected cost of the program or a billable Purchase Order number must be provided to Shirco.

Expedited processing of samples is available at a surcharge of fifty percent (50%).

TIMING

Typical turnaround time from receipt of samples to completion of test report is three (3) weeks. Laboratory workload may affect this timing. Please check with Shirco's A&D Engineering Group if you have a question concerning test schedules.

GALLAGHER

RECORD OF COMMUNICATION	<input checked="" type="checkbox"/> PHONE CALL <input type="checkbox"/> DISCUSSION <input type="checkbox"/> FIELD TRIP <input type="checkbox"/> CONFERENCE <input type="checkbox"/> OTHER (SPECIFY)	
	(Record of item checked above)	
TO: Phil Schwandt Env. Engineer 6E-5C	FROM: Bill Smith, Investigator NEIC, Denver, CO (F75)	DATE 9/4/87 TIME 176-3315
SUBJECT Investigation of Shisco Infrared Systems, Dallas TX		
SUMMARY OF COMMUNICATION Mr. Bill Smith, NEIC, Denver, CO called me to ask whether or not Shisco Infrared Systems had notified me about burning waste from the Strongfellow site. I told him that Mr. Mark deLorimier had called me on 8/4/87 to ask a question about the concentration of PCB in waste; but, as far as I could remember, Mr. deLorimier had not mentioned anything about burning waste from the Strongfellow site. I told Mr. deLorimier that he should verify the PCB concentration with Jim Sales, 6H-CP.		
CONCLUSIONS, ACTION TAKEN OR REQUIRED		
INFORMATION COPIES TO: Robert Murphy, 6E-5, ✓ Sam Barker, 6H-C, Jim Neet, 6C		

Date: 9/14/87

Subject: Shircs

To: Sam Becker

From: Bill Taylor

During the criminal meeting Al discussed Shircs with the criminal folks. NEIC will not give us or share with us info they obtained during their investigation, except for lab data. Al decided not to pursue the case (civil) and let the criminal guys proceed with it. We will give technical support to the criminal investigators, if requested.

Should we send a copy of our inspection report to TWC.

RECORD OF COMMUNICATION	<input checked="" type="checkbox"/> PHONE CALL <input type="checkbox"/> DISCUSSION <input type="checkbox"/> FIELD TRIP <input type="checkbox"/> CONFERENCE <input type="checkbox"/> OTHER (SPECIFY)			
	(Record of item checked above)			
TO:	FROM:		DATE	
BILL GALLAGHER 64-CE	STEVE SHEETS - SCHIRCO		9/3/87	
			TIME	10:45

SUBJECT

CEZ

FOLLOW-UP ON VIOLATIONS THAT WERE DISCUSSED DURING 8/28-29/87

SUMMARY OF COMMUNICATION

AT EXIT INTERVIEW, THE FOLLOWING WERE NOTED AS POSSIBLE VIOLATIONS. ADDITIONAL VIOLATIONS MAY BE DISCOVERED AFTER EPA REVIEWS THE SCHIRCO FILES THAT WERE SEIZED BY NEIC

1. NO DOCUMENTATION THAT ARRANGEMENTS WERE MADE WITH THE LOCAL HOSPITAL, FIRE + POLICE DEPTS. I TOLD STEVE THEY (SCHIRCO) MUST HAVE WRITTEN DOCUMENTATION THAT THE ABOVE HAD BEEN DONE
2. SCHIRCO HAS NOT SUBMITTED GEN. OR TOX QUARTERLY REPORTS (EPA BIENNIAL REPORTS) TO TWC I TOLD STEVE TO CONTACT SUZIE FERGUSON WITH TWC IN AUSTIN REGARDING WHAT FORMS TO SUBMIT
3. STEVE WANTED TO KNOW IF EPA COULD INSPECT SCHIRCO PERIODICALLY TO SEE IF THEY WERE IN COMPLIANCE. I TOLD HIM BECAUSE TWC WAS AUTHORIZED, EPA WOULD NOT GENERALLY DO THAT. I SUGGESTED HE CALL TWC ABOUT THAT POSSIBILITY

CONCLUSIONS, ACTION TAKEN OR REQUIRED

FILE + LOOK AT SCHIRCO FILES AT NEIC ASAP!
TO DETERMINE ANY ADDITIONAL VIOLATIONS + CONFIRM REGULATED STATUS

INFORMATION COPIES

TO: FILE, B. TAYLOR, C. FAULTRY

UNITED STATES DEPARTMENT OF JUSTICE
FEDERAL BUREAU OF INVESTIGATION
Receipt for Property Received/Returned/Released

On (date) August 26, 1987

item(s) listed below were:

- ☒ Received From
☐ Returned To
☐ Released To

(Name) SHIRCO INFRARED SYSTEMS, INC.

(Street Address) 1195 Empire Central

(City) Dallas, Texas

Description of
Item(s):

1 "INTERFACE 1986" FILE

1 "Superfund/RCRA SITE" DATA FILE

1 "Scopes of Supply" File

1 "Purchase Agreement" File

1 "DAILY NOTES" FILE

1 File Containing "MARINE SHALE" Documents

1 spiral notebook

2 yellow pieces of paper with handwriting

1 Employee list - printout

1 page marked "Departmental Accounts"

1 NOTEBOOK marked "1985 Sludge Reports"

1 NOTEBOOK marked "1986 Sludge Reports"

1 NOTEBOOK marked "1987 Sludge Reports"

BERDINE

WEISS

7 VIDEO TAPES

CONF. ROOM

1 AD FILE ON SHIRCO

PAPERS MARKED "INTERIM MILESTONES"

PAPERS MARKED "R D + D Permit Application"

1 letter + 1 yellow HANDWRITTEN piece of PAPER

1 "SUPERFUND Report Policy Guide" Book

PAPERS MARKED "DIOXIN DECONTAMINATION TEST - TIMES BEACH, MD"

1 File MARKED Contractors/SUBCONTRACTORS

PAPERS MARKED "Contract Pricing Proposal Cover Sheet"

PAPERS MARKED "STRINGFELLOW DEMONSTRATION TEST BURN PLAN"

1 NOTEBOOK MARKED "TEST Protocol for DECON. of Stringfellow Soils"

Documents FROM "ENTROPY" TO SHIRCO

Received by:

AL [Signature]
(Signature)

Received from

AL [Signature]
(Signature)

8-26-87

Brandon J. O'Brien

The following items/documents were taken from the office of Stephen L. Sheets, Manager, Safety + Health, Sheris Infrared Systems, Inc., 1195 Empire Central, Dallas, TX 75247, pursuant to a federal search warrant:

- (1) Copies of three (3) certificates of training for Mark de Lorimier
- (2) One (1) manual entitled: "Hazardous Waste Sampling" with handwritten name of Mark de Lorimier
- (3) One (1) manual entitled: "Hazardous Waste Training Manual" with handwritten name of Mark de Lorimier
- (4) One (1) manual entitled: "OSHA Guidance Manual for Hazardous Waste Site Activities"
- (5) One (1) copy of a four (4) page article entitled: "When Bad Management Becomes Criminal"
- (6) One (1) copy of a three (3) page document dealing with monitoring results re: ARCO
- (7) One (1) copy of a one (1) page document entitled "Stringfellow - SAIC Test Schedule"
- (8) One (1) copy of a one (1) page document entitled "Stringfellow - SAIC Test Matrix"
- (9) One (1) page original with names and responsibilities re: SAIC
- (10) One (1) folder with contents and bearing an identification of "Stringfellow - SAIC"

Bjo 8/26/87

- (11) One manila envelope containing blank "Texas water Commission Uniform Hazardous Waste Manifest" forms from # 00324092 through # 00324119
- (12) One folder containing misc. Shisco employee/corporate employee Chain of Command, employee responsibilities, etc.
- (13) One folder containing no documents entitled: "I/BH Test."
- (14) One (1) black 3-ring binder entitled "EPA Basic Level Field Activities Training Course."
- (15) One (1) folder bearing the identification of "Interim Status" and containing numerous documents.
- (16) One (1) folder bearing the identification "Hog. Mat. Mgt. Program" and containing one (1) set of stapled documents dealing with "...Interim Status Standard Operating Procedures"
- (17) One (1) folder bearing the identification: "Burlington Northern L.A. Test" and containing numerous documents
- (18) One (1) folder bearing the identification: "AECO - Sand Springs, OK" and containing numerous documents
- (19) One (1) folder bearing the identification: "I/BH Test" and containing numerous documents
- (20) One (1) folder bearing the identification: "Stringfellow Site" and containing numerous documents
- (21) One (1) folder bearing the identification: "AECO Sand Springs, OK" and containing numerous documents.
- (22) One (1) white 3-ring binder with an identification of: "Test Protocol for Decontamination of Stringfellow Soils"

15/0 8/26/87

- (23) Four (4) copies of Shiro's plant floor plan
- (24) One (1) black 3-ring binder with an identification label of "RCRA Interim Status"
- (25) Twenty (20) pages dealing with "Strickfellow - SAIC" during August, 1987 and appearing to be individuals' medical tests
- (26) Two (2) original "Employer's First Report of Injury or Illness" for Wayne Crutcher and Kenneth Russell

Page 3 of 3 pages

Brendan J. O'Brien

August 26, 1987

UNITED STATES DEPARTMENT OF JUSTICE
FEDERAL BUREAU OF INVESTIGATION
Receipt for Property Received/Returned/Released

On (date) August 26, 1987

Item(s) listed below were:

- ☒ Received From
☐ Returned To
☐ Released To

(Name) SHIRCO INFRARED SYSTEMS, INC.

(Street Address) 1195 Empire Central

(City) Dallas, Texas

(Office of Mike Hill, Chief Applications Engineer)

Description of
item(s):

- (1) Three (3) page document entitled: "Background"
- (2) photo copy of an inter office memo, dated 3/17/86, with a labeled subject of "Hazardous Waste."
- (3) original inter office memo, dated 3/18/86, with a labeled subject of "Interim Status."
- (4) photo copy of a two (2) page document labeled "Hazardous Waste TGA Testing - Shirco Facility"
- (5) photo copy of a three (3) page document labeled "Interim Status Program - Shirco Facility"
- (6) photo copy of a three (3) page document, dated 4-3-86, beginning with the label "A. Sample log and storage."
- (7) photo copy of a 3/27/86 inter office communication re: Shirco Hazardous Waste Laboratory
- (8) "Test Protocol for Incineration of Solid and Liquid Wastes for IBM Corp. January 26 - February 6, 1986"
- (9) Bound document entitled "Part 265 - Interim Status Standards for owners and operators of Hazardous Waste Treatment, Storage, and Disposal Facilities."
- (10) Bound document, entitled "Final Test Report of Shirco Pilot Unit Carbon Solidification Process for SSI Technologies, Janesville, Wisconsin" and dated 3/20/86

Page 1 of 1 page

Received by:

Brendan J. O'Brien 8/26/87

(Signature)

Received from

(Signature)

**UNITED STATES DEPARTMENT OF JUSTICE
FEDERAL BUREAU OF INVESTIGATION
Receipt for Property Received/Returned/Released**

On (date) August 26, 1987

Item(s) listed below were:

- ☒ Received From
☐ Returned To
☐ Released To

(Name) SHIROO INFRARED SYSTEMS, INC.

(Street Address) 1195 Empire Central

(City) Dallas, Texas

WEST SIDE XEROX
Room

Description of
Item(s):

1 File MARKED "EPA MISCELLANEOUS"

1 File MARKED "HAZARDOUS WASTE PERMITS"

1 File "EPA MISC. 86"

1 File EPA Regional OFFICE 2

1 File EPA Regional OFFICE 4

1 File EPA Regional OFFICE 7

1 File EPA Regional OFFICE 6

1 File EPA Regional OFFICE 10

1 File TEXAS WATER COMMISSION 1987

PAPERS MARKED "USE OF A MODIFIED WASTE INCINERATION SYSTEM ----"

Misc. Correspondence - Superfund Site + Equipment

1 File "RUBICON, INC 1987"

1 File "Stringfellow 1987"

1 File "REDEL Environmental Services"

1 File "DELAWARE CONTAINER"

1 File "Dupont Soil Test 1986"

1 File "Dupont Soil Test 1983 + 1984"

1 File "BRIO Oil"

1 File "BRIO Report"

1 File "BRIO Report Appendix A"

1 File "Project 315"

1 File "BORDEN CHEMICAL" 1987

1 File "BORDEN CHEMICAL" 1986

1 File "BORDEN CHEMICAL" 1984

2 Files "BORDEN CHEMICAL" 1983 + Borden Chemical, Geismar, LA

2 Files "BORDEN CHEMICAL" 1982 + 1981

Molly Boyd's
OFFICE

Received by:

(Signature)

Received from

(Signature)

UNITED STATES DEPARTMENT OF JUSTICE
FEDERAL BUREAU OF INVESTIGATION
Receipt for Property Received/Returned/Released

On (date) August 26, 1987

Item(s) listed below were:

- ☒ Received From
☐ Returned To
☐ Released To

(Name) SHIROO INFRARED SYSTEMS, INC.

(Street Address) 1195 Empire Central

(City) Dallas, Texas

Description of
Item(s):

File titled Int'l Paper - Mr. James Welch's OFF.
File titled FLA. Steel - " "
File titled US Air Force - " "
4 Notepads, Green in Color, titled "Welch Notes" - " "
File titled Weekly Staff Meeting - " "
File titled Executive Committee - " "
File titled Engineering - " "
File titled Newsletter - " "
File titled Board Presentation - " "
Computer Printout titled "SHIROO INFRARED RADIANCE ANALYSIS" - " "
File titled - RNB Greenville - Mr. James Welch's Office
File titled - Private Placement - " "
File titled - STS Board 1985-6 - " "
Yellow Legal Pad titled Welch Notes June 25, 1987 - " "
File titled OSTIS 3/87 - " "
File titled LASALLE SITE - " "
File titled Current Active Site List - " "
File titled Staff Meetings - " "
Letter from Bendine to Welch Marked Confidential - " "
File titled Haz Tech - " "
File titled "Mid Amer Envir" - " "
File titled NCAA
File titled SARA
1 Blue Looseleaf Binder w/ Shingo Engineering Manual - " "
1 Green Looseleaf Binder with Calendars - " "

Received by:

(Signature)

Received from

(Signature)

UNITED STATES DEPARTMENT OF JUSTICE
FEDERAL BUREAU OF INVESTIGATION
Receipt for Property Received/Returned/Released

On (date) August 26, 1987

Item(s) listed below were:

- ☒ Received From
☐ Returned To
☐ Released To

(Name) SHIRCO INFRARED SYSTEMS, INC.

(Street Address) 1195 Empire Central

(City) Dallas, Texas

de LORIMER'S
OFFICE (1)

Description of
Item(s):

R D + D permit Application NO. HW - 50226
Appendix D WASTE ANALYSIS PLAN
Letter DATED MAY 28, 1987 to TEXAS WATER COMMISSION
PAPERS MARKED THERMAL TESTABILITY TESTING
1 File MARKED "TXDWR"
1 File "STRING FELLOW"
1 File Containing MISC HAZARDOUS WASTE NOTIFICATIONS
1 EPA MANUAL RE PCB REGULATIONS
1 Book MARKED ASH ANALYSIS FOR BRIO PROJECT
1 Book MARKED WASTE FEED FOR BRIO PROJECT
1-40 CFR 100-399 (7-1-80) Book
1-40 CFR 190-399 (7-1-84) Book
1 FEDERAL REGISTER 40 CFR PARTS 141-142 + 143
1 GUIDELINES FOR PCB INCINERATORS
1 Spiral BROWN NOTEBOOK
1 1987 CALENDAR
1 EPA NOTIFICATION OF HAZARDOUS WASTE ACTIVITY
7 Federal Registers
4 Federal Registers
1 Letter of Guidance From EPA DATED 2-23-84
1 Federal Register
7 EPA Guidance Letters/Documents
1-1985 APPOINTMENT BOOK
1 40 CFR PARTS 190 TO 399 (7-1-85)
1 INTER-OFFICE MEMO DATED 8-18-87
1 letter from TEXAS Air Control DATED June 1, 87

Received by:

Al M. M. M.
(Signature)

Received from

de LORIMER'S
(Signature)

UNITED STATES DEPARTMENT OF JUSTICE
FEDERAL BUREAU OF INVESTIGATION
Receipt for Property Received/Returned/Released

On (date) August 26, 1987

Item(s) listed below were:

- ☒ Received From
☐ Returned To
☐ Released To

(Name) SHIRCO INFRARED SYSTEMS, INC.

(Street Address) 1195 Empire Central

(City) Dallas, Texas

de Lorimers
OFFICE (2)

Description of
Item(s):

- 1 Letter from US EPA DATED 5-26-87
- 1 NOTIFICATION OF HAZARDOUS WASTE DATED 2-24-87
- Booklet EPA - PROPOSED AMENDMENTS TO RULES
- 1 EPA HAZARDOUS WASTE INFORMATION
- 1 USEPA GUIDANCE MANUAL FOR R.D + D PERMITS July 1986
- 1 Document on Common Deficiencies in RCRA Pt B Incinerator App
- 1 TEXAS WATER COMMISSION NOTICE OF RECEIPT OF AN APPLICATION - - - -
- 1 SHIRCO Letter TO TWC DATED OCT 8, 1986
- 1 Letter from Michigan DNR to SHIRCO DATED 7-28-87
- 1 T.W.C. "INDUSTRIAL SOLID WASTE TECHNICAL GUIDELINES"
- 1 File "SMALL QUANTITY GENERATORS"
- 1 File "SUPERFUND"
- 1 File "Replacement UNIT"
- 1 File "Quality Control"
- 1 File "Dioxin Rule of 1/14/85"
- 1 File "Pentachlorophenol - TOXICOLOGY"
- 1 File "STATE AGENCY CONTACTS - REGION VII"
- 1 File "INCINERATORS"
- 1 File "PART A PERMIT APPLICATION - PART B CHECKLIST"
- 1 File "PCB PERMITS FILE - CANADA"
- 1 RCRA HANDBOOK
- 1 RCRA ORIENTATION MANUAL
- 1 Govt Appointment Book
- 8 FEDERAL REGISTERS
- 1 1987 MONTHLY CALENDAR
- 1 EPA Letter to SHIRCO DATED - NO DATE

William Play
(Signature)

Received from

William Play
(Signature)

UNITED STATES DEPARTMENT OF JUSTICE
FEDERAL BUREAU OF INVESTIGATION
Receipt for Property Received/Returned/Released

On (date) August 26, 1987

Item(s) listed below were:

- ☒ Received From
☐ Returned To
☐ Released To

(Name) SHIRCO INFRARED SYSTEMS, INC.

(Street Address) 1195 Empire Central

(City) Dallas, Texas

Description of
item(s):

de LORIMER'S OFFICE
(3)

1 copy TITLE 22 ENVIRONMENTAL Health

12 misc. EPA DOCUMENTS

1 CARD fm Richard D. CLARKE, TWC

3 misc. handwritten NOTES

1 letter FROM Research Triangle Institute DATED: 5-22-87

1 HAZARDOUS WASTE ID Book

1 copy of Routing & TX Slip with L.O.I.S. MEMO ATTACHED

1 File "PERSONNEL"

1 INTER-OFFICE MEMO DATED 01-9-87

B. WAHLEY'S OFFICE

Received by:

William Clay
(Signature)

Received from

(Signature)

UNITED STATES DEPARTMENT OF JUSTICE
FEDERAL BUREAU OF INVESTIGATION
Receipt for Property Received/Returned/Released

On (date) August 26, 1987

item(s) listed below were:
☐ Received From
☐ Returned To
☐ Released To

(Name) SHIRCO INFRARED SYSTEMS, INC.

(Street Address) 1195 Empire Central

(City) Dallas, Texas

Description of
Item(s):

FOWLER'S OFFICE

TEST PROTOCOL FOR DECON. OF PESTICIDE + GAS Spiked Soils
1 File "CALL REPORTS - WEST"
1 handwritten piece of PAPER
1 Spiral NOTEBOOK
1 Spiral NOTEBOOK
1 INTEROFFICE MEMO DATED May 18, 1987
1 Purchase Agreement MOBILE INFRARED ENCLIN. System

JOHANSEN OFFICE

1 File "HAZZARDOUS WASTE"
1 File "Sludge Research"
1 File "BURLINGTON NORTHERN"
1 File "RCRA"
Document from "ENSCO"
SHIRCO INTER-OFFICE MEMO DATED AUG 24, 1987
1 Letter from TEXAS WATER COMMISSION DATED 9-10-86
1 PAGE "ATRA PREAPPLICATION INFORMATION"

NESMITH'S OFFICE

1 3 ring binder MARKED "SHIRCO INFRARED SYSTEMS"
1 white 3ring binder RE: "Shirco Stock + WARRANT Purchases"
1 File MARKED "SHIRCO HISTORY"
1 File MARKED "RIEDEL ENVIRONMENTAL SERVICES"
1 File MARKED "HAZTECH CORRESPONDENCE"
1 File MARKED "IBM CORRESPONDENCE"
1 MEMO RE: "Purchase Agreement + Proposals"

Received by: Al M. Play

(Signature)

Received from

(Signature)

UNITED STATES DEPARTMENT OF JUSTICE
FEDERAL BUREAU OF INVESTIGATION
Receipt for Property Received/Returned/Released

On (date) August 26, 1987

Item(s) listed below were:

- ☒ Received From
☐ Returned To
☐ Released To

(Name) SHIRCO INFRARED SYSTEMS, INC.

(Street Address) 1195 Empire Central

(City) Dallas, Texas

NESMITH'S OFFICE

Description of
item(s):

- 1 OSIS ECONOMIC ANALYSIS 8-12-87
- 1 letter Croll-Reynolds Co, Inc. 8-17-87
- 1 INTER-OFFICE RE VISIT REPORT - NIAGARA FALLS WWTP
- 1 CALL REPORT - General Motors Corp
- 1 INTEROFFICE MEMO IBM STATUS REPORT 8-17-87
- 1 Newsweek ARTICLE 7-27-87 with cover note
- 1 inter office memo Weekly Report for 7-25-87
- 2 yellow PAGES Handwritten - STAFF MEETING 7-31-87
- 1 letter fm Westinghouse 8-10-87
- 1 TELEX # 5043 TO DEKONTA GMBH-MAINZ 7-20-87
- 1 SHIRCO SAFETY PROGRAM Document
- 1 Letter AND ATTACHMENT fm Alexander & Alexander 7-24-87
- 1 file on meetings of Board of Directors
- 1 Memo on Certification
- 1 Exchange Agreement
- 1 Memo from Bruce A. Menkoff July 87
- 1 Employee List
- 1 file of corporate minutes
- 18 stock certificates
- 7 forms to canal stock certificate
- 1 meeting of Board of Directors minutes
- 1 memo to Board of Directors from Jim Walsh on cash flow
- 1 file letter project cost.
- 1 Corporate structure
- 1 employee list

Received by:

(Signature)

Received from

(Signature)

UNITED STATES DEPARTMENT OF JUSTICE
FEDERAL BUREAU OF INVESTIGATION
Receipt for Property Received/Returned/Released

On (date) August 26, 1987

Item(s) listed below were:
☒ Received From
☐ Returned To
☐ Released To

(Name) SHIRCO INFRARED SYSTEMS, INC.

(Street Address) 1195 Empire Central

(City) Dallas, Texas

(Boxes w/in the office of Mrs Shirley Coleman, Administrative Asst.)

Description of
Item(s):

- (1) Inter-Office Communication, dated 7-25-86, re:
"Interim Status Permits and Test Location"
- (2) Folder with documents bearing the label: "Hazardous
Material, Interim Status Program"
- (3) Folder with documents bearing the label: "Bob
Lowell 1986"
- (4) 1 Blue BINDER MARKED "Wilson & JAEGGLI"

Page 1 of 1 page
Brendan J. O'Brien
8-26-87

- 1 Correspondence file for James Walsh
- 1 Letter to John Martens
- 1 Blue Binder, with inter office communication

Collected by: Brendan J. O'Brien
(Signature)

Received from

(Signature)

UNITED STATES DEPARTMENT OF JUSTICE
FEDERAL BUREAU OF INVESTIGATION
Receipt for Property Received/Returned/Released

On (date) August 26, 1987

Item(s) listed below were:
☒ Received From
☐ Returned To
☐ Released To

(Name) SHIRCO INFRARED SYSTEMS, INC.

(Street Address) 1195 Empire Central

(City) Dallas, Texas

Description of
Item(s):

1 memo from Ken Skaton to Col. Marley / Sale 3/9/86
1 HAZARDOUS MATERIALS Intel Report
1 HAZARDOUS WASTE Letter 10-29-86
1 HOTLINE Vol 1-#1 OCT-1986

1 File MARKED "WILLIAM T. WALLEY"

WALLEY'S OFFICE

Received by:

Deirdre Clay
(Signature)

Received from

(Signature)



Diamond Shamrock Tower • 19th Floor, Lock Box #8 • Dallas, Texas 75201 • (214) 741-5171

GENERAL BINDER

RENEWAL _____
Date of Expiring binder

INSURED ☐ Shirco Infrared Systems, Inc.
1195 Empire Central
Dallas, Texas 75247-4301

EFFECTIVE 12:01 am 7/29/87
TIME DATE

EXPIRATION 12:01 A.M. until issued
TIME DATE

THIS IS TO CERTIFY that the undersigned have procured insurance as hereinafter specified from certain Underwriters and/or Companies.

Underwriters and/or Companies
National Union

Amounts or Limits \$ 1,000,000 each loss/
2,000,000 total all losses
25,000 self insured retention

COVERAGE
Pollution Legal Liability

REMARKS
Annual Premium: \$28,950 (25% minimum earned)

THIS BINDER IS SUBJECT TO THE PROVISIONS OF THE STANDARD POLICIES. THIS BINDER SHALL BE CANCELLED BY: (1) CANCELLATION OF THE FORMAL POLICY OR ENDORSEMENTS (2) BINDER EXPIRATION (3) SURRENDER OF THE ORIGINAL BINDER TO THE ISSUING COMPANY OR (4) WRITTEN NOTICE TO THE INSURED, AT THE ADDRESS SHOWN ABOVE, STATING WHEN (NOT LESS THAN 30 DAYS THEREAFTER) CANCELLATION SHALL BE EFFECTIVE.

Alexander & Alexander of Texas, Inc.

Date of Issue: 7/31/87

By Leland Stowe

Leland Stowe

ORIGINAL

TEXAS WATER COMMISSION



Paul Hopkins, Chairman
Ralph Roming, Commissioner
John O. Houchins, Commissioner

Larry R. Soward, Executive Director

C. Martin Wilson III, General Counsel
James K. Rourke, Jr., Chief Examiner
Mary Ann Helner, Chief Clerk

July 9, 1987

Enforcement

Mr. Mark L. deLorimier
Manager Technical Products
Shirco Infrared Systems, Inc.
1195 Empire Central
Dallas, Texas 75247-4301

Certified Mail

Re: RCRA Financial Assurance
Shirco, SW 32592

Dear Mr. deLorimier:

This agency has reviewed the Letter of Credit submitted June 4, 1987 for the above referenced facility and determined the following discrepancies:

- 1) wording of the Letter of Credit is not identical to wording specified in 40 CFR 264.-265.151(d);
- 2) no Stand-by Trust Agreement accompanied the submittal per 40 CFR 265.143(c)(3) and
- 3) the Letter of Credit must be an originally signed duplicate, not a copy.

If you require any further assistance, please contact Ms. Sonia Ralls of our Hazardous and Solid Waste Division at 512/463-7764.

Sincerely,

R. S. Kimble

Russell S. Kimble, Chief
Reports and Management Section
Hazardous and Solid Waste Division

SR:tn

~~cc: Texas Water Commission District 4 Office - Duncanville~~



InterFirst Bank Dallas, N.A.
International Operations Department
Post Office Box 83480
Dallas, Texas 75283

S.W.I.F.T.# IFRD US44
Answer Back: IFRD UT
Cable Address: INFST 01 DAL
Telex Number: 73-353
TRT Number: 16-244

IRREVOCABLE STANDBY
LETTER OF CREDIT
NO. 63485

June 4, 1987dw

Enforcement

Texas Water Commission
Mr. Brian Dixon
Director - Hazardous & Solid Waste Div.,
Texas Water Commission
P.O. Box 13087
Capitol Station
Austin, TX 78711

Dear Sir or Madam:

We hereby establish our irrevocable letter of credit in your favor for the account of Shirco Infrared Systems, Inc., 1195 Empire Central, Dallas, Texas 75247, up to an aggregate amount of U.S. \$2,060.00 (Two thousand sixty and NO/100 U.S. Dollars) available with ourselves by payment of your draft on us at sight accompanied by:

Your signed statement reading as follows: "I certify that the amount of the draft is payable pursuant to regulations issued under authority of the Resource Conservation and Recovery Act of 1976 as amended."

Your draft must bear the clause "DRAWN UNDER INTERFIRST BANK DALLAS, N.A. LETTER OF CREDIT NO. 63485."

Presentation of your draft and document(s) in compliance with the terms of this letter of credit must be made to us on or before September 4, 1987, on which date this letter of credit expires.

Yours very truly,

INTERFIRST BANK DALLAS, N.A.

By: Holly Eal
Authorized Signature

EXCEPT SO FAR AS OTHERWISE EXPRESSLY STATED, THIS DOCUMENTARY CREDIT IS SUBJECT TO THE "UNIFORM CUSTOMS AND PRACTICE FOR DOCUMENTARY CREDITS, (1993 Revision)", INTERNATIONAL CHAMBER OF COMMERCE (Publication No. 400).



Enforcement

June 2, 1987

M. Brian Dixon, P.E.
Director *TV WARE COMM.*
~~Hazardous and Solid Waste Division~~
P. O. Box 13087
Capital Station
Austin, Texas 78711

Dear Brian:

On behalf of all Shirco employees, I would like to thank you and other members of the TWC program and legal staff for your assistance on our testing authorization. This, to say the least, is a most important issue to Shirco and our customers. Please rest assured that our test program will be carried out in accordance with all relevant and applicable requirements.

Again, thanks for your attention to this matter. Please do not hesitate to contact me if I may be of assistance.

Sincerely yours,

A handwritten signature in cursive script, appearing to read "Scott P. Berdine".

Scott P. Berdine
Vice President
Business Development

SPB/mkb

TEXAS WATER COMMISSION

Paul Hopkins, Chairman
Ralph Roming, Commissioner
John O. Houchins, Commissioner



Larry R. Soward, Executive Director
Mary Ann Hefner, Chief Clerk
James K. Rourke, Jr., General Counsel

January 16, 1987

Enforcement

Mr. Scott P. Berdine
Shirco Infrared Systems, Inc.
1195 Empire Central
Dallas, Texas 75247-4301

Re: Operation of a Mobile Thermal Waste Processing System; Industrial Solid Waste Registration No. 34588

Dear Mr. Berdine:

In response to the issues raised in our recent meeting and in your letter dated October 8, 1986 and the letter dated November 17, 1986 from Mr. de Lorimier concerning the operation of a thermal waste processing system at your Dallas location, the Texas Water Commission staff is in the process of evaluating the arguments you have presented and has no objection to your scheduled activity involving the immediate contractual obligation you described to us in our meeting of January 14, 1987. The Texas Water Commission requests that notice be given to Mr. Don Eubank (214/298-6121) in our District 4 Office in Duncanville at least 48 hours prior to conducting any testing of samples at your facility in furtherance of your contractual obligation.

After further evaluation, we intend to inform you, in writing, of our decision regarding the applicability of permitting requirements to your activities. If you have any further questions, please call me at (512) 463-7760.

Sincerely,

B. Dixon
Bryan Dixon
Director
Hazardous and Solid Waste Division

cc: TWC District 4 Office - Duncanville



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY
WASHINGTON, D.C. 20460

MAY 13 1986

OFFICE OF
PESTICIDES AND TOXIC SUBSTANCES

Mr. James Welsh
President
Shirco Infrared Systems, Incorporated
1195 Empire Central
Dallas, Texas 75247-4301

Dear Mr. Welsh:

This letter grants Shirco Infrared Systems, Incorporated (Shirco) approval to conduct research and development (R & D) into disposal of polychlorinated biphenyls (PCBs) in soil using a portable pilot incinerator. The purpose of this experimental permit is to determine whether the Shirco pilot scale incinerator is able to meet the safety and efficacy standards for PCB incinerators under 40 CFR §761.70.

Shirco will assemble all test results and related information into a test report and submit the report to the Office of Toxic Substances (OTS) for evaluation. OTS will use these data to determine whether the pilot scale incinerator has the ability to achieve the PCB incinerator operating standards specified in §761.70. U.S. Environmental Protection Agency (EPA) Region IV in conjunction with Florida Steel Corporation will use the data to assess the feasibility of utilizing a full-scale Shirco Transportable Incinerator for site cleanup at Florida Steel's Indiantown Mill facility in Indiantown, Florida. Region IV is also considering utilizing the pilot scale incinerator for cleanup of PCB waste at an additional site in Florida.

Pursuant to the regulations at 40 CFR Part 2, Subpart B (41 Federal Register, 39997, September 8, 1978, you are entitled to assert a business confidentiality claim covering information you submit under this R & D approval. If such a confidentiality claim is not asserted with the submission, EPA may make this information available to the public without further notice to you. Information subject to a business confidentiality claim may be made available to the public only to the extent set forth in the above cited regulations. Any such claim for confidentiality must conform to the requirements set forth in 40 CFR §2.203(b).

The issuance of this R & D approval does not release Shirco or its agents from any liability for damage to person or property caused by or resulting from the operation or maintenance of equipment covered by this approval. The conditions of this approval are enforceable under the Toxic Substances Control Act (the Act) and its implementing regulations, 40 CFR Part 761. Any actions by Shirco or its agents which violate the terms and conditions of this letter, the Act, or the regulations may result in administrative, civil, or criminal enforcement by EPA in accordance with Section 16 of the Act, 15 U.S.C. §2615.

Authority

This approval to conduct research and development into PCB disposal is issued pursuant to Section 6(e)(1) of the Toxic Substances Control Act of 1976, Public Law No. 94-469, and the Federal PCB Regulations, 40 CFR Part 761.60(e), (48 Federal Register, 13185, March 30, 1983).

Background

The Florida Steel Corporation is conducting a feasibility study to evaluate various alternatives for on-site treatment of PCB-contaminated soils at its Indiantown Mill facility. The purpose of the study is to identify the most cost-effective and environmentally sound treatment/disposal option available for cleanup of the site. One of the alternatives which will be evaluated is the Shirco incineration system. Florida Steel Corporation has contracted Shirco to conduct a one-week on-site test program utilizing the Shirco Portable Pilot Unit to incinerate small quantities of PCB-contaminated soil. The results of this program will be used by Florida Steel to determine the viability of the Shirco technology and to estimate the site cleanup costs utilizing the full-scale Shirco Transportable Incinerator for site cleanup.

On April 30, 1986, EPA Headquarters received Shirco's application for a research and development (R & D) approval to conduct the feasibility testing program at the Indiantown Mill facility.

Proposed Tests

The R & D tests will be conducted at Florida Steel's Indiantown Mill facility in Indiantown, Florida. The material to be incinerated during the testing will consist of PCB-contaminated soils which have been excavated at the site and stored in 55-gallon drums. Approximately 2,000 pounds of contaminated soils will be incinerated. The PCB concentration of the soil will range from approximately 50-5,000 parts per million (ppm).

The excavated soils, consisting of silt, sand, and small quantities of PCB-containing hydraulic fluid, will be fed to a

hopper mounted over a metering conveyor belt. The conveyor is covered and equipped with rubber skirts to minimize infiltration of air or escape of furnace gases. An adjustable gate located at the conveyor discharge, distributes the material across the width of the metering belt and assists in furnace sealing.

On the conveyor, wastes move through the insulated heating modules (primary unit) where it is brought to combustion temperature by infrared heating elements. Rotary rakes turn the material to ensure adequate mixing and complete burnout. As the material (ash) reaches the discharge end of the furnace, it drops off the belt through a chute and into an enclosed hopper.

Exhaust gases exit the primary chamber near the feed module to a secondary chamber, where a propane-fired burner is used to ignite combustible gases present, and burn them at a predetermined set-point temperature. Secondary air is supplied to the afterburner to insure adequate excess oxygen levels for complete combustion. Exhaust gases from the secondary chamber then pass through a venturi scrubber/spray tower to the exhaust stack.

The waste feed rate to the incinerator during the test program will be approximately 50 pounds/hour. It is anticipated that soils will be burned approximately 8 hours/day for a maximum of 4 days.

Conditions and Findings

1. A thirty-day advance notice of the tests must be provided to the Regional Administrator of EPA Region IV and State and local officials where the Shirco process will be used. This notice must include the exact site, date and entity using the Shirco process along with an estimate of the length of stay at the site.
2. Prior to commencing the tests, Shirco must obtain any necessary Federal, State or local permits or approvals. During the course of the testing, Shirco shall comply with all conditions and requirements of such permits or approvals.
3. The Shirco Portable Pilot Incinerator may be used by Shirco to destroy PCBs contained in 2,000 pounds of soils. The concentration of PCBs in the soils will range from 50 to 5,000 ppm. Prior to treatment the soil must be sampled and analyzed by gas chromatography for the concentration of PCBs in accordance with EPA-approved procedures that are outlined in the following documents:

"Guidelines for PCB Destruction Permit Applications and Demonstration Test Plans," April 16, 1985 (Draft);

Quality Assurance and Quality Control Procedures for Demonstrating PCB Destruction in Filing for PCB Disposal Permit," USEPA, June 28, 1983 (Draft);

"Recommended Analytical Requirements for PCB Data Generated on Site During PCB Destruction Tests," December 12, 1985 (Draft); and

"Interim Guidelines and Specifications for Preparing Quality Assurance Project Plans," QAMS-005/80, Office of Research and Development, USEPA, December 29, 1980.

4. A sample of the treated soil must be drawn and analyzed in duplicate by gas chromatograph for the concentration of PCBs at the test site. If the concentration of PCBs in the sample is 2 ppm or greater per peak, as calculated by comparison to an external standard homolog peak having the nearest retention time to each appropriate PCB peak to be quantified, the soil must be reprocessed, handled and/or disposed of as though it contained the original concentration of PCBs in the feed material (soils).
5. Waste Characterization: All wastes generated by the Portable Pilot Unit must be characterized. Included in the list of wastes must be the following: stack emissions (gases and particulates), bottom ash, scrubber water, other particulates from air pollution control equipment. As a minimum all wastes must be analyzed for PCBs, PCDDs and PCDFs. PCDDs and PCDFs include the congeners 2,3,7,8-tetrachlorodibenzodioxin and dibenzofuran, total tetrachlorodibenzodioxins and tetrachlorodibenzofurans.
6. Stack Emissions Monitoring: Stack emissions must be monitored for the following:
 - oxygen (O_2), continuous
 - carbon monoxide (CO), continuous
 - carbon dioxide (CO_2)
 - nitrogen oxides (NO_x)
 - hydrochloric acid (HCl)
 - total chlorinated organic content (RCI)
 - total particulates
7. Waste Handling and Disposal: Water discharges shall be incinerated in EPA-approved PCB incinerators unless it can be shown that the discharge contains no detectable PCBs (for this purpose, 2 ppm) or that the discharge is controlled under an existing National Pollutant Discharge Elimination System (NPDES) permit.
8. Expiration Date: Shirco shall cease the R & D testing on June 13, 1986, the expiration date of this approval.

9. Recordkeeping: Provisions must be made to assure that the following process elements are suitably monitored and recorded for each burn of PCB-contaminated soil:

- a. quantity and quality of PCBs and other raw materials charged into the Portable Pilot Incinerator;
- b. quantity and quality of process waste generated (i.e., sludges, filter media, water, spent solvent or other effluents, including vent gases or other emissions;
- c. temperature and pressure of reaction in at least one-half hour intervals;
- d. date, time and duration of each burn; and
- e. name of operator and supervisor.

This information and all pertinent test data shall be incorporated into a test report and submitted to EPA Headquarters no later than 60 days after the completion date of the testing.

10. In the event Shirco or an authorized facility operator of the Portable Pilot Incinerator believes, or has reason to believe, that a release has or might have occurred, the facility operator must immediately inform the PCB Disposal Section Chief (202-382-3964) and EPA Region IV's PCB Coordinator (404-347-3864).

A written report describing the incident must be submitted by the close of business on the next regular business day. No PCBs may be processed in that facility until the release problem has been corrected to the satisfaction of EPA Region IV.

11. EPA employees shall have access to the Shirco Portable Pilot Incineration system during the R & D tests for purposes of inspection, observation, or sampling. This access is subject to normal safety requirements placed on Shirco personnel or their agents.

12. Shirco or its agents must take all necessary precautionary measures to ensure that operation of the Portable Pilot Unit is in compliance with the applicable safety and health standards, as required by Federal, State and local regulations and ordinances.

13. The Shirco Portable Pilot Unit shall be secured (e.g., fence, alarm system, etc.) at the test site to restrict public access to the area. Any personal injury occurring as a result of the Shirco process must be reported to the EPA Region IV PCB Coordinator (404-347-3864) by the next regular business day.

14. Any spills of PCBs or other fluids shall be promptly contained and cleaned up. In addition, a written report

describing the spill, operations involved, and cleanup actions must be submitted to EPA Region IV within five (5) business days.

15. Shirco is responsible for ensuring that personnel directly involved with the handling or disposal of PCB-contaminated material using the Portable Pilot Unit are demonstrably familiar with the general requirements of this R & D approval. At a minimum this must include:

- a. the type of material which may be treated during the testing of the Portable Pilot Unit, and the upper limit of the PCB contamination which may be treated;
- b. basic reporting and recordkeeping requirements under this R & D approval and the location of records at the test site;
- c. notification requirements; and
- d. waste disposal requirements for process and by-product wastes generated during the testing of the Portable Pilot Unit process.

In this regard, Shirco must maintain on-site during the testing of its mobile unit a copy of this R & D approval; a spill prevention and cleanup plan; and the sampling plans to collect untreated and treated materials.

16. Untreated PCB material may not be transported off-site except for proper disposal. PCB-contaminated equipment on the Portable Pilot Unit may be transported off-site in accordance with 40 CFR Section 761.40 and the U.S. Department of Transportation (USDOT) requirements of Title 49, CFR Part 172. Such requirements include placarding the equipment and labelling all PCBs.

17. All wastes generated by the Portable Pilot Unit (filter media, sludge, water, solvent or other effluents, etc.) which have been found to contain 2 ppm or more PCBs, as calculated by comparison to an external standard homolog peak having the nearest retention time to each appropriate peak to be quantified, must be disposed of in a PCB disposal facility approved by EPA under 40 CFR Part 761.60. EPA-approved analytical methods for PCBs in different phases (water, solids and oil) must be used by Shirco in making such determinations.

18. Shirco shall comply with all applicable requirements of the Federal PCB Regulations, 40 CFR Part 761, in the operation of the Portable Pilot Unit. Particular note should be given to:

- a. 40 CFR, Section 761.65 - storage for disposal;
- b. 40 CFR, Section 761.79 - decontamination; and

c. 40 CFR, Section 761.180 - records and monitoring.

19. Any departure from the conditions of this research and development approval or the terms expressed in the application and R & D plan from Shirco must receive authorization from the EPA. Verbal authorizations by EPA must be followed within ten working days by a written notification from Shirco describing all modifications. In this context, "application" shall be defined as all data and materials which have been received by this Agency from the Shirco Infrared Systems, Incorporated regarding the Shirco Portable Pilot Unit.

Under the above conditions, and given the circumstances under which the research and development test will be conducted, the Office of Toxic Substances finds, pursuant to 40 CFR §761.60(e), that these tests will not present an unreasonable risk of injury to health or the environment.

Approval to conduct research and development into disposal is hereby granted to Shirco Infrared Systems, Incorporated of Dallas, Texas subject to the conditions expressed herein, and consistent with the materials and data included in Shirco's application. This R & D approval is valid only when conducted at Florida Steel Corporation's Indiantown Mill facility in Indiantown, Florida. The effective dates of this R & D approval are May 13, 1986 to June 13, 1986.

Date: 5/13/86

Don R. Clay

Don R. Clay, Director
Office of Toxic Substances

cc: Bob Stryker
USEPA, Region IV

"837" STRINGFELLOW INVENTORY

DRUM #	WT	DESCRIPTION
837 A-1	297½	ASH /55 GALLON DRUM.
837 A-2	212.6#	ASH /55 GALLON DRUM.
837 A-3	325#	ASH /55 GALLON DRUM.
837 A-4	351#	ASH /55 GALLON "
837 FA-2	7½ #	ASH FROM BELT /5 GALLON PAIL
837 FA-3	5#	" " " " "
837 FA-4	12½	" " " " "
837 W1-1	76#	SCROOPER WATER /30 GALLON DRUM.
837 W2-1	280#	" " " " " } TEST
837 W3-1	272#	" " " " " }
837 W1-2	280½	" " " " " } TEST.
837 W2-2	110#	" " " " " }
837		
837 W1-3	262 #	" " " " " } TEST 3
837 W2-3	218#	" " " " " }
837 W1-4	277½	" " " " " } TEST 4
837 W2-4	282½	" " " " " }
837 WC-1	110	WATER USED FOR CLEANING ^{55 GALLON} PAILS
837 F-1	340# grass	NON spiked feed
837 F-2	709.5 grass	" " "
837 F-3 rocks	354 grass	" " "
837 F-4	703.5 "	" " "
837 F-5	169.5 "	" " "
837 SF-1	104.5 #	Spiked feed

FIGURE 3.5

**SOIL CHARACTERISTICS - ORGANICS AND MISCELLANEOUS
CONCENTRATIONS IN ug/g UNLESS OTHERWISE NOTED**

PARAMETER	LOCATION 0A17			OTHER LOCATIONS*
	HIGH	LOW	MEAN	HIGH
WATER CONTENT (%)	28.8	9.2	15.8	--
TOTAL ORGANIC CARBON	2,870	1,350	2,150	20,000
PARACHLOROBENZENE- SULFONIC ACID	4,100	ND	1,616	36,800
SULFATE	19,300	ND	7,580	123,000
CHLORIDE	178	9	103	644
CHLOROFORM	0.85	ND	0.18	0.859
TRICHLOROETHYLENE	1.22	ND	0.28	7.14
TETRACHLOROETHANE	0.55	ND	0.11	35.0
CHLOROBENZENE	2.71	ND	0.74	140.00
ETHYLBENZENE	1.08	ND	0.18	--
BENZOIC ACID	0.56	0.01	0.29	--
3-CHLOROBENZOIC ACID	4.47	ND	1.12	--
4-CHLOROBENZOIC ACID	11.00	ND	5.09	--
BIS(2-ETHYLHEXYL) PHTHALATE	2.08	0.65	1.45	--
4-CHLOROBENZOYL CHLORIDE	2.36	ND	0.59	--
4-4' DDE	8.53	0.31	2.94	26.40
4-4' DDT	55.70	0.52	15.76	55.57
PCB-1016, 1221,1232 1242, 1254	--	--	--	ND
PCB-1248	--	--	--	23.80
PCB-1260	13.00	ND	5.80	17.90
TETRACHLOROMETHANE	ND	ND	ND	--

*This column indicates the highest concentration found elsewhere on the site.

SOURCE: Stringfellow Remedial Investigation Report

FIGURE 3.6

SOIL CHARACTERISTICS - METALS
MAXIMUM CONCENTRATIONS IN ug/g UNLESS OTHERWISE NOTED

PARAMETER	LOCATION OA17		OTHER LOCATIONS*	
	DEIONIZED WATER LEACH	STRONG ACID LEACH	DEIONIZED WATER LEACH	STRONG ACID LEACH
ALUMINUM	2,470	14,000	17,900	25,700
ARSENIC	0.89	7.34	10.1	10.2
BARIUM	0.05	131	0.221	436
CALCIUM	607	11,200	842	146,000
CADMIUM	3.03	3.18	4.90	3.18
CERIUM	3.98	46.2	4.05	46.2
CHROMIUM	98.0	912	206	964
COPPER	26.2	135	38.7	69.3
FLUORINE	127	--	393	--
IRON	244	21,600	16,100	65,900
MERCURY	<0.001	0.044	0.009	0.059
POTASSIUM	300	--	2,000	--
LANTHANUM	1.35	42.6	5.44	27.6
MAGNESIUM	306	5,630	6,420	12,200
MANGANESE	72.1	267	237	598
SODIUM	523	--	3,000	--
NICKEL	7.04	21.0	26.0	38.8
NITRATE	37.7	--	162	--
LEAD	0.046	97.1	0.427	831
TITANIUM	0.24	1,670	1,400	3,030
URANIUM	1.25	33.8	27.0	104
ZINC	24.7	75.1	60.0	87.9

*These columns indicate the highest concentrations found elsewhere on the site.

85+
STRINGFELLOW INVENTORY

Drawn #	WT	DESCRIPTION
837 w/s/p-1	103#	WASTE/SUITS/PLASTIC
837 w/s/p-2	106#	" "
837 w/s/p-3	99#	" "